

1/8

Name: at	Len: 162	Check: 5339	Weight: 1.00
Name: bn	Len: 162	Check: 8426	Weight: 1.00
Name: bv	Len: 162	Check: 6644	Weight: 1.00
Name: gh	Len: 162	Check: 7625	Weight: 1.00
Name: le	Len: 162	Check: 951	Weight: 1.00
Name: cg	Len: 162	Check: 1715	Weight: 1.00

//

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1                                     50
at MGEIGFTEKQ EALVKESWEI LKQDIPKYSI HFFSQILEIA PAAKGLFSFL
bn mgeivftekq ealvkeswei lkqdipkysl hffsqileia paakdmfsfl
bv ---MTFTEKD EALVKESWDI MKQNIPEYSL RFFSIILEIA PAAKNMFSFL
gh ---mgftekq eglvkeswev lkqdiphssl rffslileia pgaknmfsfl
le ---mgftdkq ealvrdswef mkqdipqlsl rffslileia pvaknmfsfl
cg ---maltekq eallkqswev lkqnipahsl rlfalileaa peskyvfsfl

```

```

51                                     100
at RDSDEVPHNN PKLKAHAVKV FKMTCEIAIQ LREEGKVVVA DDTLQYLGSF
bn rdtdevphnn pklkahavkv fkmtcetaiq lrekgvvva ddtlqylgsv
bv RDSEEVQNN PKLKAHAIVK FKMTCESAIQ LREKGEVVVG ETTILKYLGA
gh reseepqnn pklkahavkv fkmtcesaiq lrekgevvva ddtlkylgtv
le kdsdelpenn pklrahavkv fkmtcesaiq lrekgevvvg ettlkylgsi
cg kdsneipenn pklkahaavi fkticesate lrqkghavwd nntlkrlgsi

```

```

101                                    150
at HLKSGVIDPH FEVVKALR TLKEGLG.EK YNEEVGAWS QAYDHLALAI
bn hfksgvidph fevvkealvr tlkeglg.ek yneevegaws kaydhlalai
bv HLKNGVIDPH FEVVKQALLR TIEEASG.DK WSEELKCAWS VAYDHLAAAI
gh hvksgvkdph fevvkeallr tieeaigeeq wneemknawg eaydqlaeai
le hlqkrvadph fevvkeallr tvkeatg.nk wkdemkeaws eaydqlasai
cg hlnkitdph fevmkgallg tikeai.ken wsdemgcawt eaynqlvati

```

```

151      162
at KIEMKQES~ ~
bn kaemkqedsq kp
bv KAEMKE*~~~ ~
gh kaemknhhde ta
le kaemhaeaaa ~
cg kaemke~~~~ ~

```

FIGURE 1

2/8

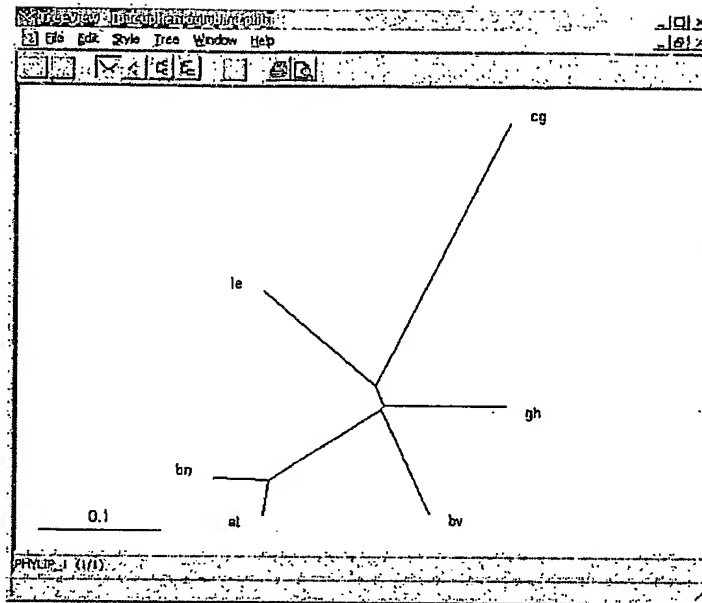


FIGURE 1 (continued)

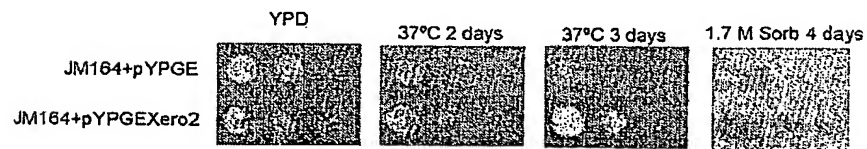


FIGURE 2

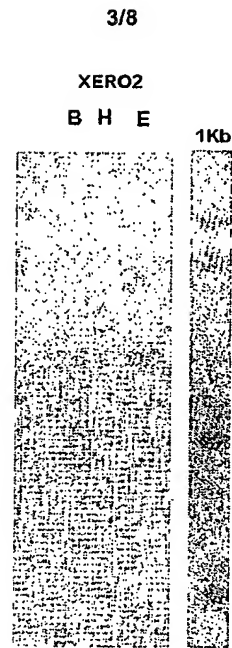


FIGURE 3

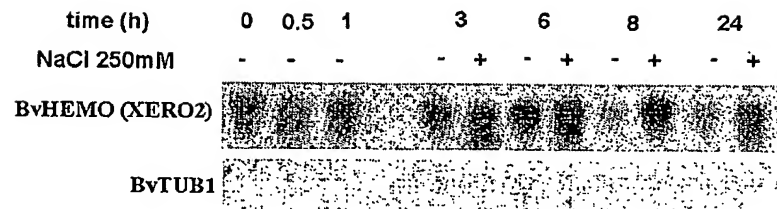


FIGURE 4

4/8

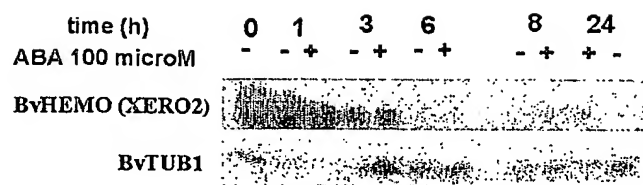


FIGURE 5

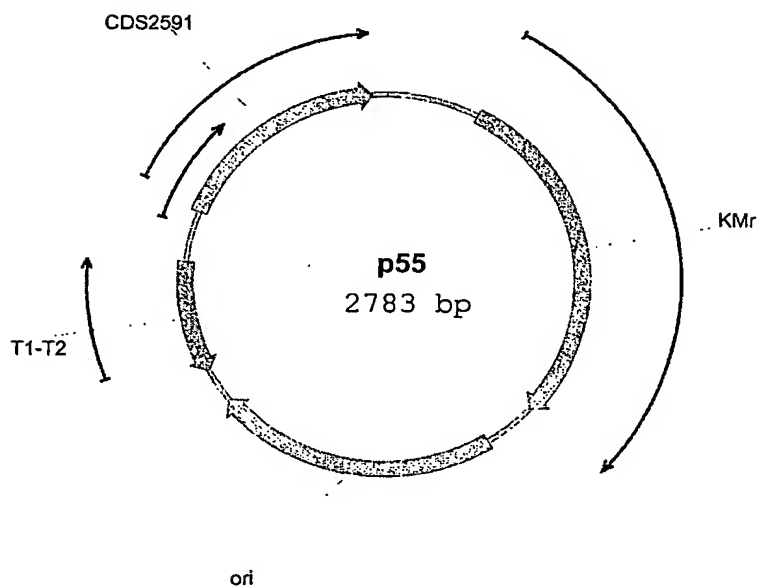


FIGURE 6

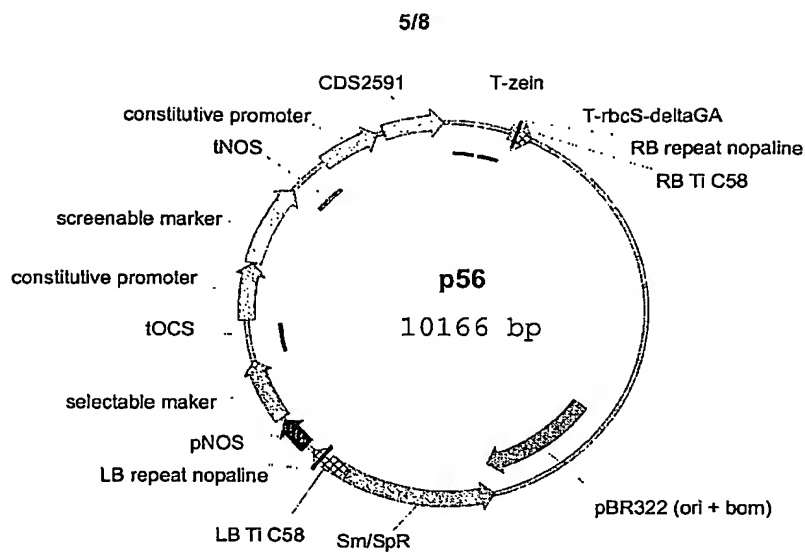


FIGURE 7

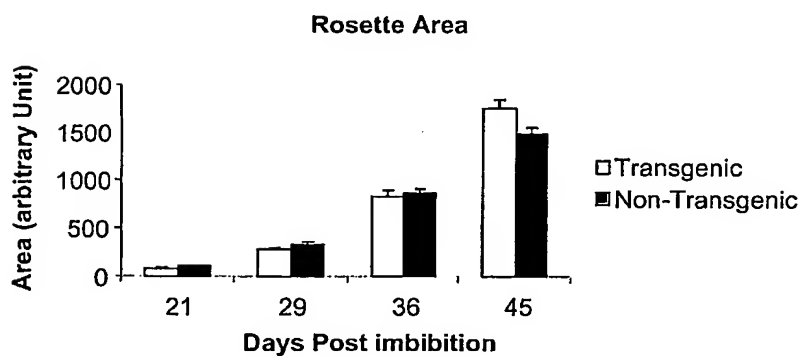


FIGURE 8

6/8

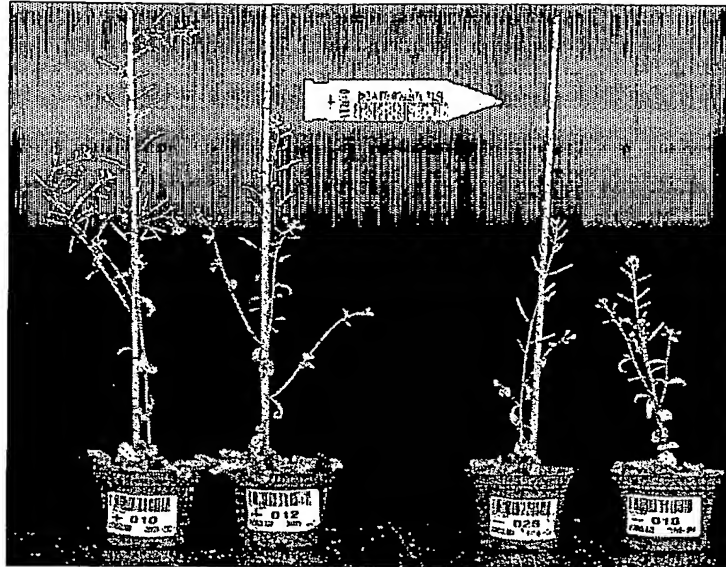


FIGURE 9

7/8

SEQ ID NO 1: Xero2 cDNA

tacaaaccacaaatttaagctattaatacactttctctgtcattttttgtgttccaattta
 gtttcttttcttttaattaaaaacaaaactatgacttttacagagaaagatgaagcttttgt
 aaaagaatcatgggatataatgaagcaaaatcccagaatacagccttcggtttttctcca
 taatattgaaaattgctccagcagccaaaaatattgttctcatttttaagggattcagaggaa
 gttccacagaataatccaagctgaaagctcatgcaatcaagggttttaaaatgacatgtga
 atcagccattcaacttcgagaaaaaggtgaagtgggtgtaggagagactacccttaaatatt
 tgggagctatccatttgaagaatggagtgattgatccccattttgaggttgtaaacaagca
 ttattgagaaccatagaagaagcaagtggtagcaaatggagtgaagaattgaaatgtgcttg
 gagtgttgctatgatcacttagctgcagccatcaaagctgagatgaaggaataggtagctt
 agttctcagtcgcaaaaagtattactctaaaaatattgaataaatattcttattgttttga
 ggggaattattgttattgttgattctgactcacttattatccgagtgacttgatatgggtg
 ctttttcttgcttattattgttagcaagaaggaaatcaaattcataattattgggttaac
 catgtaatagtgcataattaattgtgataaaaccttggtgatatatgtaccttattgcaatt
 taaaaataattccctcgggtctttcatttttaaaaaaaaaaaaaaaaaaaaaa

SEQ ID NO 2: Xero2 deduced protein sequence

MTFTEKDEALVKESWDIMKQNIPEYSLRFFSIILEIAPAAKNMFSFLRDSEVPQNPKLKA
 HAIKVFKMTCESAIQLREKGEVVGETTLKYLGAHILKNGVIDPHFEVVKQALLRTIEEASG
 DKWSEELKCAWSVAYDHLAAAIKAEMKE

SEQ ID NO3: *Arabidopsis thaliana* class 2 non-symbiotic haemoglobin (GLB2), cDNA

attgaataccatatatatagatacacagacatatataaacacacaaatattcgtgtttttt
 caaactgtgagagaaaaaagagagaaagagatgggagagattgggtttacagagaagca
 agaagctttggtgaaggaatcgtgggagatactgaaacaagacatcccaaatacagccttc
 acttcttctcacagatactggagatagcaccagcagcaaaaggcttggttctcttctcctaaga
 gactcagatgaagtcctcacaacaatcctaaactcaaagctcatgctgttaaagtcctcaa
 gatgacatgtgaaacagctatacagctgagggaggaaggaaagggtggtagtggctgacacaa
 ccctccaatatttaggctcaattcatctcaaaagcggtggtattgacctcacttcgaggtg
 gtgaagaagctttgctaaggacattgaaagaggggttgggggagaaatacaatgaagaagt
 ggaagggtgcttggtctcaagcttatgatcacttggttttagccatcaagaccgagatgaaac
 aagaagagtcataaaacctattgatcatttggtatcgcatacatgaatctattccacata
 catgatacacatatacgtgtttctgtgtgtactatggtgctctctgactttctacagttc
 actattttaattataaagaaggatcttggtgctatcattagggagatagctgatactgtagtt
 cttcttgaaattgttattcgtgagaaatatcatggtttgaagtatttattttcacaaagatgg
 atgttaacgtggggtcattttacaatcattctacaataattttacttctc

SEQ ID NO 4: *Arabidopsis thaliana* class 2 non-symbiotic haemoglobin (GLB2), deduced protein sequence

MGEIGFTEKQEAIVKESWEILKQDIPKYSLHFFSQILEIAPAAKGLFSFLRDSDEVPHNNPK
 LKAHAVKVFKMTCEAIQLREEGKVVDITLQYLSIHLKSGVIDPHFEVVKQALLRTLKE
 GLGEKYNEEVEGAWSQAYDHLALAIKTEMKQES

FIGURE 10

8/8

SEQ ID NO 17: Brassica napus class 2 non-symbiotic hemoglobin (GLB2) cDNA sequence

atgggagagattgtgtttacggagaagcaagaagctttggtgaaggagtcttgggagatact
aaagcaagatatccccaatacagtcctcacttctctcacagatactggagatagcaccag
cagcaaaggacatgttctctttcctaagagacacagatgaagtcctcataacaatcctaaa
ctcaaagctcatgctgtttaaagcttcaagatgacatgtgagacagcaatacagctgagggg
gaaaggaaaaggtagtgtgtggctgacacaacctccaatacttgggctctgttcatttcaaga
gcggtgttcttgatcctcactttgaggtggtgaaagaggcattggtgaggacactgaaagaa
gggttgggggagaagtacaatgaagaagtgaaggagcttggccaaggcttatgatcactt
ggctttagccattaaggccgagatgaacaagaagactcacaaaaaccctaa

SEQ ID NO 18: Brassica napus class 2 non-symbiotic hemoglobin (GLB2), deduced protein sequence

MGEIVFTEKQEALVKESWEILKQDIPKYSLEHFFSQILEIAPAAKDMFSFLRDTDEVPHNNPK
LKAHAVKVKMTICETAIQLREKGVVVADTTQLYLGSVHFKSGVLDPHFEVVKALVRTLKE
GLGEKYNEEVEGAWSKAYDHLALAIKAEKQEDSQKP

SEQ ID NO 19: primer prm05458

ggggaccactttgtacaagaaagctgggtcaaatgatcaatagggtttta

SEQ ID NO 20: primer prm06122

ggggacaagtttgtacaaaaagcaggcttaaacagtgagagaaaaagaaagagaga

SEQ ID NO 21: primer prm05447

ggggacaagtttgtacaaaaagcaggcttaaacatggctctcgtggaggata

SEQ ID NO 22: primer prm05448

ggggaccactttgtacaagaaagctgggtgatcatggaggtggagcag

SEQ ID NO 23: primer prm06021

ggggacaagtttgtacaaaaagcaggcttaaacatgacttttacagagaaagatgaagct
tt

SEQ ID NO 24: primer prm06022

ggggaccactttgtacaagaaagctgggtctaagctacctattccttcattctcagc

FIGURE 10 (continued)